

FIG. 4

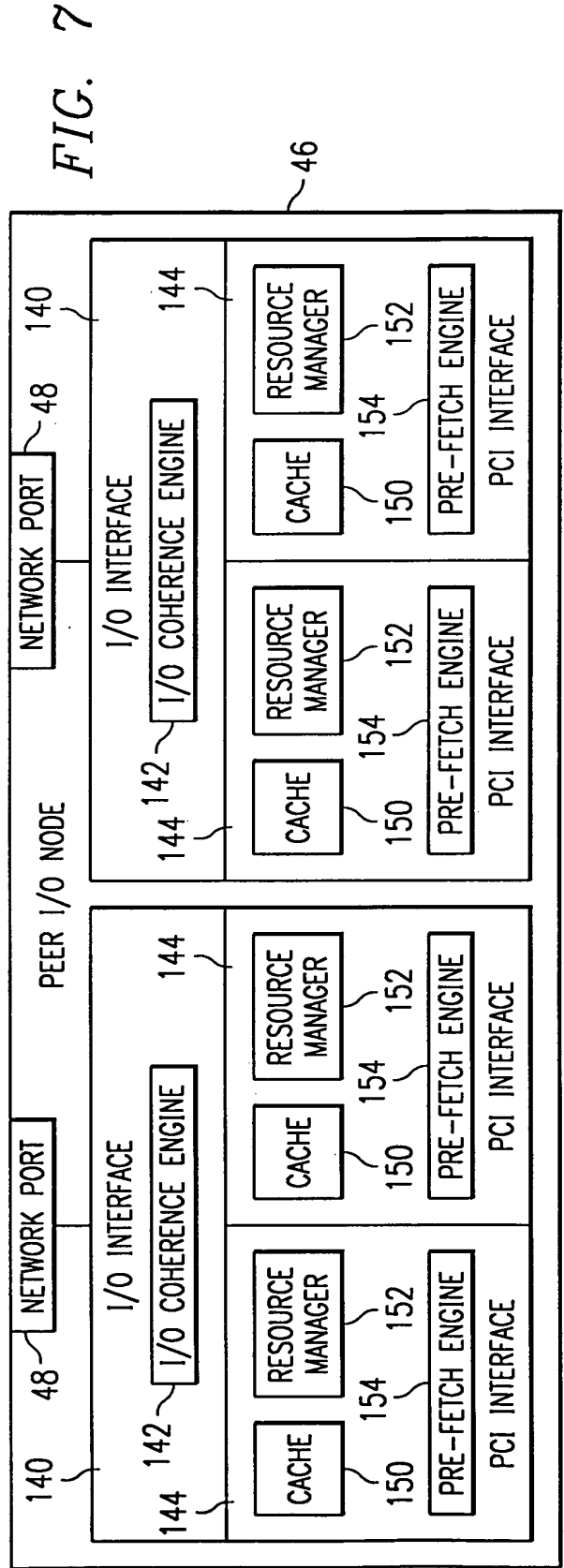
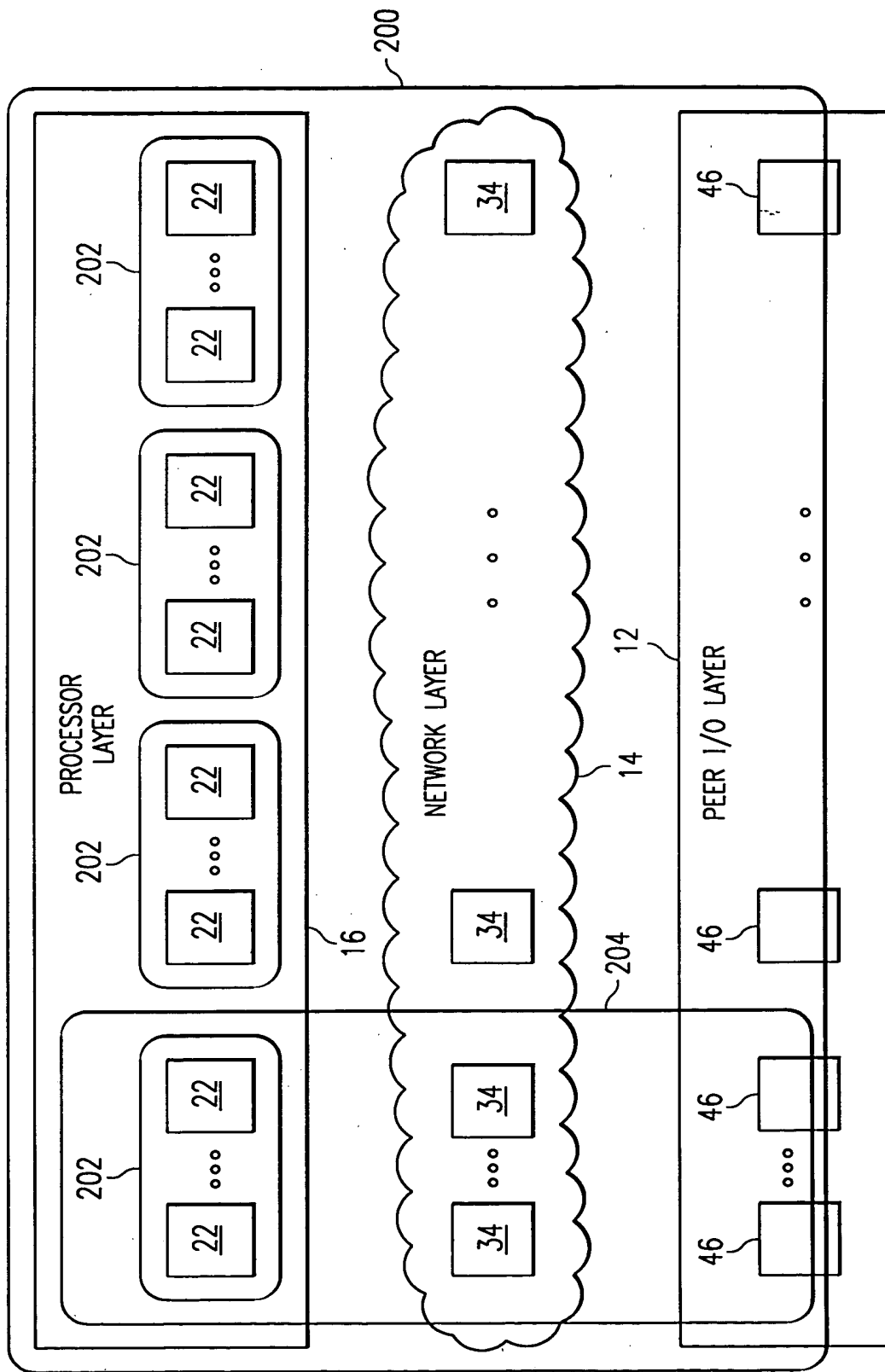


FIG. 7

FIG. 8



902		904	906		900
GROUP		NAME	DESCRIPTION		
910	READ	SHARED	READ		910a
			RDSHD	READ SHARED	
		EXCLUSIVE	RDEXC	READ EXCLUSIVE	910b
			RDXRO	EXCLUSIVE READ-ONLY TIMED	
			RDXRN	EXCLUSIVE READ-ONLY UNTIMED	
	GET	GET	READ INVALID		910c
		GETF	READ INVALID, FORCED		
	etc.	AMOR	ATOMIC MEMORY OPERATION, READ		910d
		NCRD	NON-COHERENT READ		
912	WRITE	WRITEBACK	WRBK	WRITEBACK	912a
			WRBKR	WRITEBACK, CONCURRENT READ OUTSTANDING	
			IWE	IMPLICIT WRITEBACK EXCLUSIVE	
			RQSH	CEX DROP (RELINQUISH)	
			RQSHR	CEX DROP, CONCURRENT READ OUTSTANDING	
	PUT	PUT	WRITE INVALIDATE		912b
		PFCL	CACHE LINE FLUSH		
	ETC.	AMOW	ATOMIC MEMORY OPERATION, WRITE		912c
		NCWRD	NON-COHERENT WRITE, DOUBLEWORD		
		NCWRF	NON-COHERENT WRITE, CACHE LINE		
914	PROBE	SHARED	INTER	INTERVENTION SHARED	914a
		EXCLUSIVE	INEXC	INTERVENTION EXCLUSIVE	914b
			FLSH	FLUSH	
			ERASE	ERASE	
		GET	ININV	INTERVENTION INVALID	914c
			ININF	INTERVENTION INVALID, FORCED	
	ETC.	INVAL	INVALIDATE		914d
916	INVAL GENERATION	BINEV	BACKOFF INVALIDATE ECHO, VECTOR FORMAT		
		LINW	LOCAL BLOCK INVALIDATE VECTOR		

FIG. 9

1000 1002 1004 1006 *FIG. 10A*

GROUP		NAME	DESCRIPTION	
1010	SHARED	SRPLY	SHARED REPLY	1010a
		SRESP	SHARED RESPONSE	
		SACK	SHARED ACKNOWLEDGE	
		BINTR	BACKOFF INTERVENTION SHARED	
	EXCLUSIVE	ERPLY	EXCLUSIVE REPLY	1010b
		ESPEC	EXCLUSIVE SPECULATIVE REPLY	
		ERESP	EXCLUSIVE RESPONSE	
		EACK	EXCLUSIVE ACKNOWLEDGE	
		ERPYP	EXCLUSIVE REPLY, SEND PRGE	
		BIEXC	BACKOFF INTERVENTION EXCLUSIVE	
		BINW	BACKOFF INVALIDATE, VECTOR FORMAT	
		BINVP	BACKOFF INVALIDATE, POINTER FORMAT	
	GET	IRPLY	INVALID REPLY	1010c
		ISPEC	INVALID SPECULATIVE REPLY	
		IRESP	INVALID RESPONSE	
		IACK	INVALID ACKNOWLEDGE	
		NACKG	NEGATIVE ACKNOWLEDGE TO GET	
		BIINV	BACKOFF INTERVENTION INVALID	
		BIINF	BACKOFF INTERVENTION INVALID FORCED	
	ETC.	AARP	AMO READ REPLY	1010d
		NCRP	NON-COHERENT READ REPLY	
		NACK	COHERENT READ NEGATIVE ACKNOWLEDGE	
1012	WRITEBACK	WBACK	WRITEBACK ACKNOWLEDGE	1012a
		WBBACK	WRITEBACK BUSY ACKNOWLEDGE	
	PUT	WACK	WRITE INVALIDATE ACKNOWLEDGE	1012b
		WACKP	WRITE INVALIDATE ACK, SEND PRGE	
		WNACK	WRITE INVALIDATE NEGATIVE ACKNOWLEDGE	

TO FIG. 10B

1000

FIG. 10B

FROM FIG. 10A

1012	WRITE	PUT	BFLSH	BACKOFF FLUSH	1012b
			BERSE	BACKOFF ERASE	
		ETC.	AWAK	AMO WRITE ACKNOWLEDGE	1012c
			NCWAK	NON-COHERENT WRITE ACKNOWLEDGE	
1014	SHARED		SHWB	SHARING WRITEBACK	1014a
			DNGRD	DOWNGRADE	
			SHWBR	SHARING WRITEBACK, PRIOR WB PENDING	
			DNGDR	DOWNGRADE WITH PRIOR WB PENDING	
	EXCLUSIVE		PRGE	PURGE	1014b
			XFER	OWNERSHIP TRANSFER	
			PRGER	PURGE WITH PRIOR WB PENDING	
			XFERR	OWNERSHIP TRANSFER, PRIOR WB PENDING	
			IWACK	IMPLICIT WRITEBACK RACE ACKNOWLEDGE	
	GET		IIACK	INTERVENTION INVALID ACK	1014c
	ETC.		IVACK	INVALIDATE ACK	1014d
1016	ERROR		PERR	POISONED ACCESS ERROR	
			AERR	READ PROTECTION VIOLATION ERROR	
			WERR	WRITE PROTECTION VIOLATION ERROR	
			DERRR	DIRECTORY ERROR ON A READ REQUEST	
			DERRW	DIRECTORY ERROR ON A WRITE REQUEST	

FIG. 11

